CLAIMS

1. Transmission device comprising at least a first rotary member (12) mounted coaxially on a second rotary member (11, 18), said first rotary member (12) being able to rotate at least in one direction independently from said second rotary member (11, 18), and in the opposite direction, able to be constrained to said second rotary member (11, 18) in order to rotate solidly therewith, characterized in that it is able to assume a first and a second condition of use, wherein said first rotary member (12) is able to rotate in the two directions independently from said second rotary member (11, 18), and a third condition of use wherein clamping means (30, 130), integrally associated with said first rotary member (12), move from a position of non-interference to a constraint position wherein they constrain said second rotary member (11, 18) in order to make said first rotary member (12) and said second rotary member (11, 18) rotationally solid.

2. Device as in claim 1, characterized in that it comprises a braking member (13) able to cooperate selectively with said first rotary member (12) in order to take said clamping means (30, 130) from said position of non-interference to said constraint position.

3. Device as in claim 1 or 2, characterized in that said first rotary member (12) comprises at least two components (14, 15; 114, 115) axially associated with each other, a first (14, 114) of said components including guide means (21, 121) with respect to which said clamping means (30, 130) are able to slide or oscillate in order to move from said position of non-interference to said constraint position.

4. Device as in claim 3, characterized in that said clamping means (30) are constrained to said second

component (15).

5. Device as in claims 2 and 3, characterized in that said braking member (13) is able to act on said second component (15).

6. Device as in claim 3, characterized in that said first rotary member (12) comprises two first components (14) between which said second component (15) is present.

7. Device as in any claim from 3 to 6 inclusive, characterized in that said clamping means (30) are able to move from said constraint position to said position of non-interference because they are drawn by said second rotary member (11, 18) when the first component/components (14) of said first rotary member (12) is/are stopped or considerably slowed down.

8. Device as in claim 3, characterized in that said guide means comprise at least a hollow (21) with whose inner surfaces said clamping means (30) are able to cooperate.

9. Device as in claim 8, characterized in that the inner surfaces of said hollow (21) include at least a segment (21b) converging towards said second rotary member (11, 18).

10. Device as in claim 8 or 9, characterized in that the inner surfaces of said hollow (21) include a first loop-shaped segment (21a), a second sliding segment (21b), converging towards said second rotary member (11, 18) and a third loop-shaped segment (21c).

11. Device as in claim 10, characterized in that said clamping means (30) are arranged in said first segment (21a) in their position of non-interference, follow said second segment (21b) in their passage from said position of non-interference to the constraint position and vice versa, and are in said third segment (21c) when said constraint position is reached.

12. Device as in claim 10, characterized in that said first segment (21a) and said third segment (21c) are specular with respect to said second segment (21b), said clamping means (30) being arranged at the medium point of said second segment (21b) in their position of non-interference and moving towards said first segment (21a) in order to reach the constraint position, when said first rotary member (12) rotates in one direction, and towards said third segment (21c), in order to reach said constraint position, when said first rotary member (12) rotates in the opposite direction.

13. Device as in any claim hereinbefore, characterized in that said clamping means comprise a plurality of sliding clamping blocks (30) arranged around the periphery of said second rotary member (11, 18) and kept in position of non-interference by relative elastic means (29), said sliding clamping means (30) being able to close simultaneously on said second rotary member (11, 18) in said constraint position.

14. Device as in claims 8 and 13, characterized in that each of said sliding clamping blocks (30) has at least a wider part (30a) inserted inside said hollow (21) and a narrower part (30b) constrained inside a cavity (25) of said second component (15).

15. Device as in claims 13 and 14, characterized in that said sliding clamping blocks (30) are able to move into abutment with the relative wider part (30a) on said second rotary member (11, 18) and cooperate, by means of the relative narrower parts (30b), with said elastic means (29).

16. Device as in any claim from 3 to 15 inclusive, characterized in that said components (14, 15) are associated with each other by means of pin means (28)

including at least an end (28a) inserted and clamped in at least a first component (14) and a thicker part, or collar, (28b) inserted in an aperture (26) of said second component (15).

17. Device as in claim 16, characterized in that said thicker part, or collar, (28b) is inserted in an eyelet (26) of said second component (15) inside which it is able to slide when said clamping means (30) move from said position of non-interference to said constraint position.

18. Device as in any claim from 3 to 17 inclusive, characterized in that between said first components (14) and said second component (15) there are anti-friction means (24).

19. Device as in claim 18, characterized in that said anti-friction means comprise a plurality of balls (24) sliding inside relative seatings (23, 27) made between said first (14) and said second component (15).

20. Device as in claim 3, characterized in that said clamping means (130) are of the oscillating type, are substantially drop-shaped and comprise at least a pointed part (130a) able to selectively cooperate with a mating toothing (36) made on said second rotary member (11, 18) in order to define said third condition of use, when said braking member (13) acts on said first rotary member (12) and determines the oscillation thereof with respect to the position of non-interference of said clamping means (130).

21. Device as in claim 20, characterized in that said second component (115) comprises one or more positioning cavities (126) arranged in correspondence with said guide means (121), inside which mating thrust elements (37) are able to be arranged, each of said thrust elements (37) being able to be arranged constantly in contact with the back of a respective clamping means (130) and to be thrust

in order to determine the oscillation thereof when said braking member (13) acts on said first rotary member (12).

22. Device as in any claim from 3 to 21 inclusive, characterized in that said first components (14, 114) include a seating (20) for bearing means (19) able to cooperate with said second rotary member (11, 18).

23. Device as in any claim hereinbefore, characterized in that said first rotary member comprises a wheel (12) consisting of disks (14, 15; 114, 115) and said second rotary member comprises a shaft (11) associated coaxially with a relative bushing (18) with which said clamping means (30) are able to cooperate.

24. Device as in any claim from 2 to 23 inclusive, characterized in that said braking member (13) is of the mechanical type.

25. Device as in claim 24, characterized in that it comprises interference means (31) associated with relative elastic contrasting means (32) and able to move into contact with said first rotary member (12) when a thruster element (33) is driven.

26. Device as in any claim from 2 to 23 inclusive, characterized in that said braking member (13) is of the fluid-dynamic type.

27. Device as in any claim from 2 to 23 inclusive, characterized in that said braking member (13) is of the magnetic or electromagnetic type.